STORMWATER POLLUTION PREVENTION PLAN STANDARD NOTES

1. Structural practices shall be used to control erosion and trap sediment from areas remaining disturbed for more than 14 days.

2. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing.

   Sediment basin outlet structure(s), including risers and skimmers, and temporary diversion channels shall be installed prior to the installation of any proposed storm sewer.

3. Use of structural sediment controls in streams is prohibited.

4. Performing construction activities in surface waters may be subject to CWA regulation and/or state isolated wetland permit requirements. Prior to work, project owners shall contact the U.S. Army Corps of Engineers Huntington, WV District Office at (304) 399–5210 and Ohio EPA 401/404 and non–jurisdictional stream/wetland coordinator at (614) 644–2001 to acquire necessary permits for construction activities in surface waters.

5. Construction personnel, including subcontractors who may use or handle hazardous or toxic materials, shall be made aware of the following general guidelines regarding disposal and handling of hazardous and construction wastes:
   - Prevent spills
   - Use products up
   - Follow label directions for disposal
   - Remove lids from empty bottles and cans when disposing in trash
   - Recycle wastes whenever possible
   - Don't pour into waterways, storm drains or onto the ground
   - Don't pour down the sink, floor drain or septic tanks
   - Don't bury chemicals or containers
   - Don't burn chemicals or containers
   - Don't mix chemicals together

   No toxic or hazardous wastes shall be disposed into storm drains, waterways, septic tanks, or by burying, burning, or mixing the wastes.

6. Containers shall be provided for the proper collection of all waste material including construction debris, trash, petroleum products and any hazardous materials used on–site. Containers shall be covered and not leaking. All waste material shall be disposed of at facilities approved for that material.

7. All construction & demolition debris (C&DD) waste shall be disposed of in an Ohio EPA approved C&DD landfill as required by Ohio Revised Code.

8. Materials which contain asbestos must comply with air pollution regulations. For demolition of all commercial sites, a Notification for Restoration and Demolition must be submitted to Ohio EPA to determine if asbestos corrective actions are required.

9. A Spill Prevention Control and Countermeasures (SPCC) Plan is required for sites with accumulative above ground storage of 1,320 gallons or more, or 42,000 gallons of underground storage.

   Site operators shall implement controls specified in the onsite SPCC Plan to prevent, contain, remediate and eliminate any identified spills or leaks.

10. Describe any known impounded water, groundwater or water from tunneling operations that will be pumped during this project.
    a. Provide description of control measure proposed to remove sediment from pumping operation
    b. Provide numeric effluent limits issued by Ohio EPA associated with discharges from pumping operations, if applicable

11. Pumping: Regardless of whether discharges are received by a sediment settling pond, water pumped from excavations or other areas where water is in contact with exposed soils must be discharged into a sediment bag specifically designed for the rate of pumped flow. The bag shall be securely attached to the pump discharge line to prevent separation and leaking during pumping operations and placed above–ground to allow for visual monitoring of the bag while in use. The bag shall be located on a stable surface to prevent sediment transport during discharge. Where vegetated areas are not available, discharge from the bag shall be monitored to ensure that no turbid discharges into the storm sewer or surface waters of the state are occurring. If turbid discharges are observed, additional practices must be used.

12. All contaminated soils must be treated and/or disposed in Ohio EPA approved solid waste management facilities or hazardous waste treatment, storage or disposal facilities.

    One or more of the following practices must be used to manage stormwater runoff from contaminated soils
    (1) The use of berms, trenches, and pits to collect contaminated runoff and prevent discharges
    (2) Pumping runoff into a sanitary sewer (with prior approval of the City of Columbus Pretreatment Section 614–645–5876) or into a container for transport to an appropriate treatment/disposal facility
    (3) Covering areas of contamination with tarps or other methods that prevent storm water from coming into contact with the material

    Storm water runoff associated with contaminated soils are not be authorized under Ohio EPA's General Storm Water Permit associated with Construction Activities.

13. Spill and Spill Reporting: Spills on pavement shall be absorbed with sawdust or kitty litter and disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil–based paints, and cement curing compounds require special handling. All spills which contact waters of the state must be reported to Ohio EPA at (1–800–282–9378).

    Releases or spill of 25 gallons or more of petroleum must be reported to the following agencies within 30 minutes of discovery of the the release or spill:
    (1) Ohio EPA (at 1–800–282–9378)
    (2) <<Provide name of local fire department and phone number>>
    (3) National Response Center (800) 424–8802
    (4) <<Provide name of Local Emergency Planning Coordinator and phone number>>
    (5) Division of Sewerage and Drainage, Sewer Maintenance Operations Center (614) 645–7102

14. Open burning shall be performed in accordance with Ohio Administrative Code 3745–19. No materials containing rubber, grease, asphalt, or petroleum products, such as tires, autoparts, plastics or plastic coated wire may be burned. Open burning is not allowed in restricted areas, which are defined as: 1) within corporation limits; 2) within 1,000 feet outside of a municipal corporation having a population of 1,000 to 10,000; and 3) a one mile zone outside of a corporation of 10,000 or more. Outside of restricted areas, no open burning is allowed within 1,000 feet of an inhabited building on another property. Open burning is permissible in a restricted area for: heating tar, welding, smudge pots and similar occupational needs, and heating for warmth or outdoor barbeques. Outside of restricted areas, open burning is permissible for landscape or land–clearing wastes (plant material, with prior written permission from Ohio EPA), and agricultural wastes, excluding buildings.

15. Dust Control or dust suppressants shall be used to prevent nuisance conditions, in accordance with the manufacturer's specifications and in a manner, which prevent a discharge to waters of the state. Sufficient distance must be provided between applications and nearby bridges, catch basins, and other waterways. Application (excluding water) may not occur when rain is imminent as noted in the short term forecast. Used oil may not be applied for dust control.

16. Air pollution permits may be required for activities including, but not limited to, mobile concrete batch plants, mobile asphalt plants, concrete crushers and large generators. Contact the Ohio EPA's Office of Compliance Assistance and Pollution Prevention at 1–800–329–7518 for more information.

17. The Ohio EPA Construction General Permit and Columbus City Code 1145 prohibit the discharge of wash water, leachate from onsite waste disposal systems and concrete washout activities to the City's Municipal Stormwater Sewer System (MS4) or waters of the state. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event, leachate or septage is discharged; it must be isolated for collection and proper disposal and corrective actions taken to eliminate the source of waste water.

18. Inspections for all controls shall be performed after any storm event greater than one–half inch of rain per 24–hour period by the end of the next calendar day, excluding weekends and holidays unless work is scheduled; and once every seven calendar days.

    The inspection frequency may be reduced to at least once every month for dormant sites if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions for extended periods of time (e.g., site is covered with snow, ice, or the ground is frozen).

    The SWPPP shall be updated to document the beginning and ending dates of any reduced inspection frequency.

19. Inspections of controls shall be performed by "qualified inspection personnel" as defined in the applicable Ohio EPA Construction General Permit.

    Following each inspection, a checklist shall be completed and signed by the qualified inspection personnel representative. At a minimum, the inspection report shall include:
    - Inspection Date
    - Names, titles, and qualifications of personnel making the inspection
    - weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred
    - weather information and a description of any discharges occurring at the time of the inspection
    - location(s) of discharges of sediment or other pollutants from the site
    - location(s) of BMPs that need to be maintained
    - location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location
    - location(s) where additional BMPs are needed that did not exist at the time of inspection
    - corrective action required including any changes to the SWP3 necessary and implementation dates

    Site inspections shall include, but not be limited to, the evaluation of the following:
    - evidence of or the potential for pollutants entering the drainage system from disturbed areas and areas used for storage of materials that are exposed to precipitation
    - performance of erosion and sediment control measures identified in the SWPPP
    - assessment of discharge locations to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters
    - evidence of off–site vehicle tracking at locations where vehicles enter or exit the site

    Inspection records shall be kept for 3 years following the submittal of a notice of termination form to Ohio EPA.

20. BMPs that are noted as deficient during inspections shall be addressed within the following timeframes from the date of inspection:

    - Repair or maintenance of BMPs (except sediment ponds):3 days
    - Repair or cleaning of sediment ponds: 10 days
    - Replacement of non–functional BMPs: 10 days
    - Installation of missing BMPs required by the SWPPP: 10 days

21. It shall be the responsibility of the site owner to provide notification to the City of Columbus, Stormwater and Regulatory Management Section at 614–645–6311 at least 48–hours prior to commencement of initial site land–disturbance.

22. The location where the following activities are to be performed shall be located away from watercourses, drainage ditches, field drains, storm sewers or other drainage areas. The SWPPP shall be updated throughout construction to accurately show the location of the following activities and their proximity to surface water and drainage facilities:
    - Storage or disposal of solid, sanitary, and toxic wastes (including dumpster areas)
    - Recycling of used or unused hazardous materials,
    - Cement truck washout

    A sump or pit with no potential for discharge shall be constructed to contain concrete wash water. Mixing, pumping, transferring or other handling of construction chemicals such as fertilizer, lime, asphalt, concrete drying compounds, and all other potentially hazardous materials
    - Equipment fueling and maintenance

23. The accumulated sediment shall be removed from the sediment storage zone once it exceeds 50 percent (40 percent for sites located in the Big Darby Watershed) of the minimum required sediment storage design capacity and prior to the conversion to the post–construction practice unless suitable storage is provided to meet the volume requirements indicated on the approved plans for the post–construction practice.

24. No construction related waste materials are to be buried on–site. By exception, clean fill (bricks, hardened concrete, soil) may be utilized, upon approval by the Engineer, in a way which does not encroach upon natural wetlands, streams or floodplains or result in the contamination of waters of the state.

25. Any person signing documents under this section shall make the following certification:

    "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

26. It shall be the responsibility of the site owner to receive written or electronic approval from the City of Columbus, Stormwater and Regulatory Management Section prior to the removal of any sediment settling pond or sediment trap at any time during land disturbing activities or prior to conversion to a permanent stormwater practice With the exception of temporary sediment settling ponds and sediment traps, authorization by the City of Columbus, Stormwater and Regulatory Management is not required for the removal of temporary pollution prevention controls that are authorized for removal at the conclusion of each respective construction sequence specified within a City–approved SWP3.

27. Saw–cutting: The discharge of liquid, solid or slurry detritus from saw–cutting operations into a storm sewer system is a violation of Columbus City Code 1145. Liquid, solid or slurry detritus from saw–cutting operations shall be contained and removed from the ground surface to prevent entry into a storm sewer or surface waters of the state. Directing liquid, solid or slurry detritus from saw–cutting operations to a storm sewer inlet equipped with inlet protection designed to filter sediment from stormwater runoff is not an acceptable method of containment and is a violation of Columbus City Code 1145.

28. Tracking: Sediment deposited on streets or roadways from vehicle or equipment tracking shall be removed daily from the roadway surface, including all curb lines and gutters, to prevent discharge into the storm sewer or surface waters of the state. If determined by the City that tracked sediments from a site continues to be a source of water quality degradation or cause restriction or damage to the storm sewer or surface waters of the state, the SWP3 shall be revised to mandate removal of tracked sediments at a greater frequency and with vacuum–assisted street sweeping equipment or controls of equal effectiveness.

29. Prior to modification of the SWP3 in the field, changes to the approved SWP3 revisions needed to reflect changes to sediment settling ponds, diversion channels, post–construction best management practices, permanent stormwater conveyance systems or disturbance of areas beyond those limits identified in the SWP3 shall be submitted to the following address for approval by the City.

    Chief Plans Official
    City of Columbus
    Department of Building and Zoning Services
    111 North Front Street
    Columbus, Ohio 43215

30. (For use in the Big Darby Creek watershed only)
    Sampling of sediment pond outfalls for sites located in the Big Darby Creek watershed shall be performed in accordance with those requirements specified in the Ohio EPA Construction General Permit.

    Sample results shall be kept onsite with the SWP3 and made available for inspection.

31. A Notice of Termination shall be submitted to Ohio EPA within 45 days of completing all requirements of the Ohio EPA Construction General Permit associated with work proposed on this SWP3. Any other construction activities proposed for this site beyond those provided on this plan shall be approved under a separate SWP3 and receive separate authorization from Ohio EPA for coverage under the Construction General Permit.

32. As construction progresses and the topography is altered, appropriate controls shall be constructed, or existing controls altered to address the changing drainage patterns.

33. The disposal of solid and liquid wastes shall be in accordance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

34. Permit To Install (PTI) is required prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one, two, and three family dwellings) and potable water lines. Plans must be submitted and approved by Ohio EPA. Issuance of an Ohio EPA Construction General Storm Water Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI.

35. Item Special – Volume Verification for Temporary Sediment Settling Ponds and Sediment Traps:
    The contractor shall verify that the sediment storage and dewatering volumes constructed for each temporary sediment settling pond and sediment trap are equivalent to or exceed the respective volumes specified in the construction drawings and specifications.

    Within thirty (30) days from the date of sediment settling pond and sediment trap construction, the contractor shall include in the SWP3 a copy of an as–built survey along with a City of Columbus, Department of Public Utilities Sediment Settling Pond and Sediment Trap Volume Verification Form signed by a professional engineer registered in the state of Ohio attesting that, according to the as–built survey, the sediment storage and dewatering volumes provided in the constructed temporary sediment settling pond or sediment trap equals or exceeds the volumes required by the plans. The Engineer shall provide as–built and plan sediment storage and dewatering storage volumes where indicated in the City of Columbus, Department of Public Utilities Sediment Settling Pond and Sediment Trap Volume Verification Form.

    Costs for this work shall be included under Item Special – Volume Verification for Temporary Sediment Settling Ponds and Sediment Traps, Lump Sum

36. Vehicle and Equipment Fueling and Maintenance: Vehicle fueling and maintenance activities, including oil changes, shall be performed in an area designated for such purposes away from surface waters of the state and storm sewers. The designated area shall be equipped for containing oil and catching spills. Spill kits shall be provided near all designated vehicle and equipment fueling and maintenance areas and shop fabricated double–walled tanks meeting UL standards shall be provided for all non–portable fuel and oil storage containers located onsite. Portable fuel and oil storage containers shall be stored in a containment system with sufficient capacity to contain 10% of the volume of all containers stored or the volume of the largest container, whichever is greater.

37. Inlet protection: Storm sewer systems that receive drainage during construction from unprotected inlets discharging to downstream sediment settling ponds shall be cleaned after permanent stabilization is achieved and prior to project acceptance and closeout by the City.

38. SWP3 Modification for Conversion of Centralized Temporary Sediment Control Practices: In order to assure timely completion and operation of post–construction best management practices (BMP), the following shall apply in instances where temporary sediment control practices are designated for conversion to post–construction BMPs by the SWP3 under which the post–construction BMPs designed to serve this site are to be constructed.'

    a. Unless otherwise authorized by the City of Columbus or Ohio EPA, the temporary sediment control practice(s) shall be converted to post–construction BMPs within three (3) years of initial construction of the temporary sediment control practice.

    b. Prior to post–construction BMP conversion, the SWP3 for any project or phase tributary to the converted post–construction BMPs, including this SWP3 if applicable, shall be revised to include additional temporary sediment control practices to control sediment from any areas that have not received final stabilization. Those additional, temporary sediment controls shall be implemented prior to post–construction BMP conversion.

    c. Where the post–construction BMPs are to be constructed or converted under the SWP3 for this project, or this phase of a multi–phase project, ownership of the post–construction BMPs shall be transferred to the BMP owner for ongoing maintenance and operation in accordance with the post–construction BMP maintenance plan.

CALCULATED ABC | CHECKED ABC

STORMWATER POLLUTION PREVENTION PLAN NOTES

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

XXXX-E

X
XX

SITE NARRATIVE

PLAN DESIGNER:	Company Name Contact Name Address Address Phone Number E-mail Address
OWNER/DEVELOPER:	Company Name Contact Name Address Address Phone Number E-mail Address
PROJECT DESCRIPTION:	Provide project description
EXISTING SITE CONDITIONS:	Describe the existing site conditions and stormwater runoff flow patterns and/or existing stormwater runoff conveyance and management features.
RECEIVING STREAM:	Determine the stormwater runoff outfall location(s) and identify the nearest receiving stream name.
AREAS OF DISTURBANCE:	Indicate the estimated limits of disturbance that will result in the proposed site improvement activities, including contractor staging areas and soil stockpile/borrow areas. The estimated disturbed area should match the area identified on the Ohio EPA Notice of Intent (if applicable).
ADJACENT AREAS:	Describe the adjacent land uses
EROSION AND SEDIMENT MEASURES:	Describe the controls that will be implemented to manage the construction site stormwater runoff and that will be used to temporarily and permanently stabilize the disturbed areas.
OEPA NOI #	N/A if less than 1 Ac. disturbance OR To Be Determined (Include permit number upon NOI approval)

CONSTRUCTION SEQUENCE

CONSTRUCTION SEQUENCE:	Identify the sediment controls that are to be installed prior to or during each phase of the construction of the project improvements. Indicate when disturbed areas are to be temporarily and/or permanently stabilized. If a sediment basin shall be constructed, indicate that the City of Columbus Erosion and Sediment Control Inspector must approve removal or conversion to the permanent water quality Storm Water Control Practice (SCP).
INSPECTIONS:	The NPDES permit holder along with the Contractor shall provide qualified personnel to conduct site inspections ensuring proper functionality of the erosion and sedimentation controls. All erosion and sedimentation controls are to be inspected once per every seven calendar days and within 24 hours of a 0.5" storm event or greater that occurs over a 24 hour period. Records of the site inspections and maintenance activities shall be kept and made available to the City of Columbus and Ohio EPA if requested.
MAINTENANCE:	It is the Contractor's responsibility to maintain the sedimentation and erosion control features on this project. Any sediment or debris which has reduced the efficiency of a control shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the City. Additional sediment controls, that were not identified on the City approved plan, that are necessary to be installed to properly manage runoff are to be approved by the City.
SCHEDULE:	The Contractor shall provide a schedule of operations to the City. Sedimentation and erosion control features shall be placed in accordance with this schedule.

The onsite contacts responsible for sediment and erosion control on this site are:

BMP Installation Primary Contact	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
BMP Installation Secondary Contact	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
BMP Maintenance	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX
Site Stabilization and BMP Removal	XXXX, Attn: XXXX	Tel: (###) ###-####	Email: XXXX

NOTE: All erosion and sedimentation control practices are subject to field modifications at the discretion of the City of Columbus and the Ohio EPA. The SWPPP is required to be kept up-to-date to reflect approved modifications.

The SWPPP plan view and notes are detail sheets are a component of the overall SWPPP. The SWPPP and Ohio EPA NOI approval letter must maintained onsite at all times and made readily available upon the City of Columbus and Ohio EPA request.

Street cleaning is required during operations with the high potential to produce mud track-out, such as soil import and export activities. This includes sweeping, power cleaning and (if necessary) manual removal of dirt or mud in the street gutters. Cleaning shall be performed at a frequency sufficient to prevent the migration of track-out beyond the limits of controls identified in the SWPPP, and this may require multiple cleanings each day. Street cleaning shall occur on an as-needed basis during the remainder of construction activities.

Direct discharge of sediment laden water to the City's sewer system or a receiving stream is a violation of Ohio EPA and City of Columbus regulations. The Contractor will be held liable for the violation and subsequent fines.

TABLE 1 - DISTURBED AREA STABILIZATION TIMEFRAME REQUIREMENTS

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
Any areas that will lie dorment for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any areas at final grade	Within seven days of reaching final grade
AREA REQUIRING TEMPORARY STABILIZATION	**TIME FRAME TO APPLY EROSION CONTROL**
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

SEDIMENT AND EROSION CONTROL NOTES

CONTRACTORS RESPONSIBILITIES:
Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the Ohio EPA Manual "Rainwater and Land Development". The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Discharges Associated with Construction Activity.

Prior to land disturbing activities commencing within the limits of disturbance identified on the plan, sedimentation and erosion control features shall be installed to manage runoff from the existing site conditions. Additional controls per plan are to be installed as site improvements are constructed. Field adjustments with respect to locations and dimensions may be made by the City of Columbus and the Ohio EPA.

The Contractor shall place inlet protection for the sedimentation control immediately after construction of the catch basins or inlets. Existing storm sewer inlets located within the project limits shall be protected with the appropriate inlet protection.

It may become necessary to remove portions of sedimentation controls during construction to facilitate the grading operations in certain areas. However, the controls shall be replaced upon completion of grading or prior to a rain event.

The contractor is responsible for ensuring that offsite soil borrow and export areas have Ohio EPA NPDES permit coverage and that appropriate erosion and sediment controls are properly installed and maintained.

The Contractor shall be responsible to ensure that no solid or liquid waste is discharged into storm water runoff. Untreated sediment-laden runoff shall not flow off of site without being directed through a control practice.

The Contractor shall be responsible for maintaining on-site drainage at all times during construction. No Separate payment shall be made for maintaining drainage.

The cost for temporary channels, sediment dams, sediment basins, and other appurtenant earth moving operations shall be included in the price bid for erosion and sedimentation control quantities.

Regardless of whether discharges are received by a sediment basin, water pumped from excavations or other areas where water is in contact with exposed soils must be discharged into a dewatering filter bag.

Stormwater managment basin disturbed slopes above the normal pool elevation shall be seeded upon construction and temporarily stabilized with erosion control matting or straw mulch with a jute matting cover.

The contractor shall be responsible for contacting the City of Columbus Industrial Wastewater Pretreatment Group at 614-645-5876 if planning to discharge groundwater into a combined sanitary sewer. A Special Waste Evaluation Request Form (SWERF) may need to be submitted and approvals granted for the discharge to proceed.

PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS

All public agencies and private contractors performing pavement cutting operations on City of Columbus streets and roadways shall protect the environment form discharges created by the pavement cutting operations. Note that Columbus City Code 1145 prohibits non-stormwater discharge into the City of Columbus sewer system, curb inlets and any part of its MS4 (Municipal Separate Storm Sewer System). Directing liquid, solid or slurry detritus from saw-cutting operations to a storm sewer inlet equipped with inlet protection designed to filter sediment from stormwater runoff is not an acceptable method of containment and is a violation of Columbus City Code 1145.

The requirement includes but is not limited to wet or dry saw-cutting, jack hammering, excavation, equipment use, etc. The public agency and/or private contractor work crews shall recover and dispose of detritus, polluted waters, or other such discharges resulting from their pavement cutting operations and protect all storm sewer inlets from receiving any discharges from the construction operations. The agency or contractor responsible for each pavement cutting activity shall be solely liable for notice of violations (NOV's) and fines issued by the City of Columbus and/or State of Ohio authorities.

Equipment, materials, and methods shall be provided by the responsible public agency and/or private contractor to work crews performing the pavement cutting activity and made available to work crews for use in cleaning up discharges resulting from such cutting activities and preventing runoff. All work crews shall be trained to exercise and employ equipment, materials, and environmental protective measures to prevent polluted discharges from entering the City of Columbus storm sewer system and water of the State of Ohio.

The public agency and/or private contractor is solely responsible for ensuring that the the inlet protection is adequate.

VEGETATION ESTABLISHMENT

The limits of seeding and mulching are as shown within the plan as indicated by the limits of disturbance. All areas not designated to be seeded shall remain under natural ground cover. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense. Seeding Provided Per Item 659.

"Temporary Vegetation" - Disturbed areas not at final grade shall be stabilized with temporary vegetation per the timeframes identified within Table 1. Seeding to establish temporary vegetated cover shall be applied at the following rates:

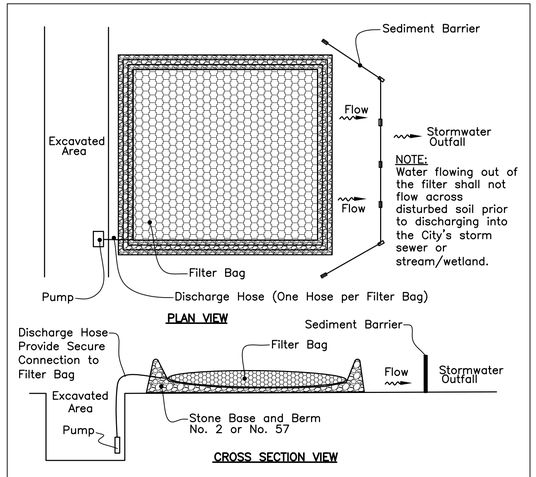
March 1 to August 15
Seed: Oats X lbs./X Sq.Ft.
Fertilizer: (12:12:12) X lbs./X Sq.Ft.
Mulch:(Straw or Hay) X tons/acre

August 15 to November 1
Seed: Annual Rye X lbs./X Sq.Ft.
Fertilizer: (12:12:12) X lbs./X Sq.Ft.
Mulch:(Straw or Hay) X tons/acre

November 1 to March 1
Mulch (ONLY):(Straw or Hay) X tons/acre

"Permanent Vegetation"- Disturbed areas at final grade shall be stabilized with permanent vegetation per the timeframes identified within Table 1. The establishment of permanent vegetation shall be done between March 15 and September 15. If seeding is done between September 15 and March 15, it shall be classified as "Temporary Seeding." Permanent seed shall be 40% Kentucky Bluegrass, 40% Creeping Red Fescue, 20% Annual Ryegrass. Establishment of permanent vegetation shall consist of fertilizing, watering, and seeding rates indicated under Item 659.

Rates of application of Item 659:
Seed: X lbs./X Sq.Ft.
Fertilizer: (12:12:12) X lbs./X Sq.Ft.
Mulch: Straw (Hay) X tons/acre (X tons/acre)

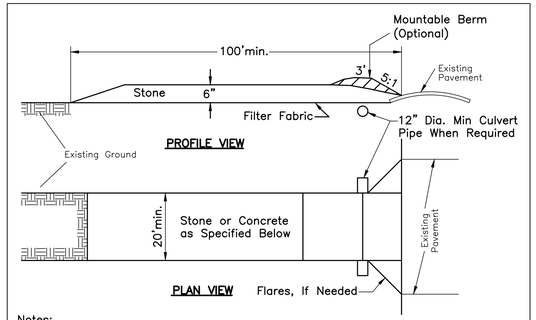


Installation:
The Contractor shall pump muddy water encountered within excavated areas into a filter fabric bag. The bag shall be placed within a level undisturbed area as far away from the stormwater outfall as possible. The bag shall be placed on top of a aggregate pad. Additionally, a perimeter aggregate berm shall be constructed around the bag. Perimeter controls such as compost filter socks or sediment fence shall be utilized along the downstream side of the bag. The perimeter controls shall be installed to ensure that the water flowing out of the bag does not flow around the ends of the controls. Upon completion, the bag shall be removed to an area away from the stormwater outfall and opened. The accumulated sediment shall be spread out to allow to dry and stabilized with vegetation. Filter bags shall be sized based upon the pumping inflow rate.

Maintenace:
The filter bag shall be replaced when the bag is half filled with sediment.

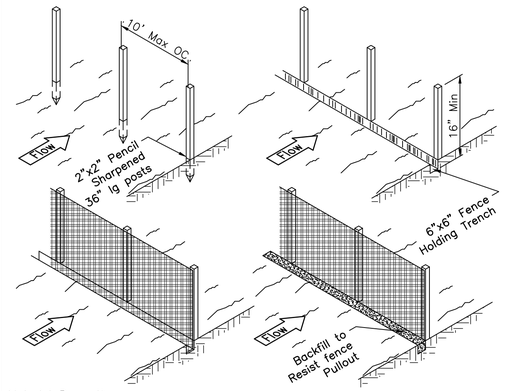
The Contractor shall contact the project inspector/engineer for consultative services if dewatering activities overwhelm the filter bag and perimeter controls. A Special Waste Evaluation Requests Form (SWERF permit) is required for dewatering into the sanitary sewer system.

DEWATERING FILTER BAG
SCALE: NONE



Notes:
1. Stone Size - Use 2" stone or reclaimed or recycled concrete equivalent.
2. Length - A minimum of 100', but may be longer as determined by the City of Columbus.
3. Thickness - Not less than six (6) inches.
4. Width - Twenty (20) feet minimum but not less than the full width at points where ingress or egress occurs. May be wider as determined by the City of Columbus.
5. Flares or radii shall be installed at the entrance if the public roadway speeds and/or traffic conditions warrant it, of if directed by C.O.C. personnel.
6. Filter Fabric - Will be placed over the entire area prior to placing the stone.
7. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes shall be permitted.
8. Culvert Pipe - 12" minimum pipe is required if a storm ditch or swale exists at the proposed entrance. The culvert pipe inverts shall match the existing ditch at both sides of the entrance.
9. Maintenance - The entrance shall be maintained in a condition which will protect the public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-way must be removed immediately.
10. Washing - Wheels shall be cleaned to remove sediment prior to entrance into public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
11. Periodic inspection and needed maintenance shall be provided after each rain.
12. Maintenance of traffic signage shall be a 48"x48" construction entrance ahead, 200' (adequate sight distance shall be considered) before the entrance on both sides of the road or as approved the the C.O.C. Temporary Traffic Control Coordinator. Contact the C.O.C. Temporary Traffic Control Coordinator before starting the entrance work.

STABILIZED CONSTRUCTION ENTRANCE (Std. Dwg. 2230)
SCALE: NONE

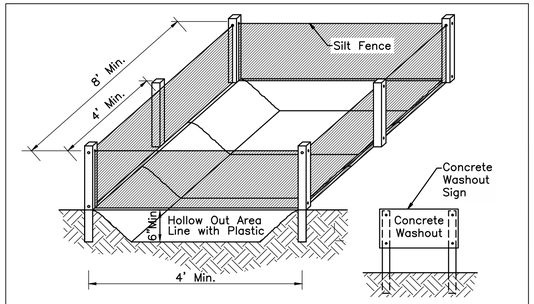


Material Properties:
1. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6 inch overlap, and securely sealed. At a minimum, filter fabric shall meet the guidelines set forth by the Ohio EPA Rainwater and Land Development Manual.
2. Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 16-inches). Wood posts will be a minimum of 32" long.
3. A trench shall be excavated approximately 6-inches wide and 6 inches deep along the line of posts and upslope from the barrier.
4. The standard strength filter fabric shall be stapled or wired to the fence, and 8-inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36-inches above the original ground surface.
5. Filter fabric shall not be stapled to existing trees.
6. The trench shall be backfilled and soil compacted over the filter fabric.
7. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
8. Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
9. To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.

Maintenance:
1. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.
2. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
3. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

Notes:
1. The use of straw wattles has proven to be a versatile and effective ESC BMP, especially in residential settings. Straw wattles may be substituted for silt fence in linear installation. Straw wattles or compost filter socks have to be a minimum of 12 inches in diameter now (OEPA).
2. For minimum criteria for the Silt Fence Fabric, reference the Ohio EPA Rainwater and Land Development Manual.

SEDIMENT BARRIER - SILT FENCE
SCALE: NONE



Notes:
1. Concrete trucks shall utilize areas to washout trucks. Wash water shall not overtop the perimeter barriers. Accumulated wash water and concrete shall be removed and properly disposed of when the level of the retained material reaches half-way up the side of the silt fence. The cost associated with excavating, installation of silt fence, maintaining and removing the concrete washout area shall be included in the bid item for the project.
2. Silt fence shall be entrenched, backfilled, and compacted per the silt fence detail. Fence shall be supported by stakes every four feet.
3. The washout area shall be installed on level ground and the area marked with a highly visible sign. If it is not feasible to install on level ground, the area shall be protected with a secondary sediment barrier.

The exact location of the concrete washout(s) may be field located by the project engineer/site contact.

The use of portable concrete washout units is approved for all construction areas in the City of Columbus.

CONCRETE WASHOUT AREA
SCALE: NONE

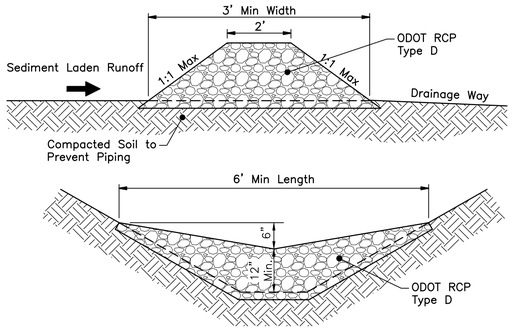
CALCULATED | CHECKED

STORMWATER POLLUTION PREVENTION PLAN NOTES

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

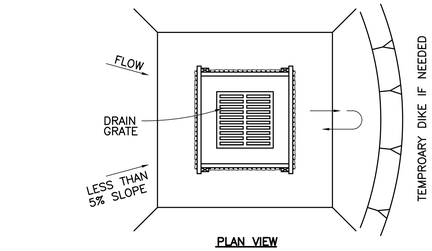
XXXX-E

X
XX

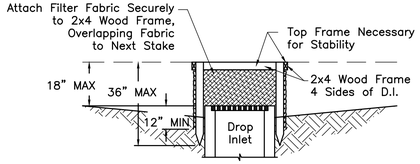


Maintenance:
1. Aggregate check dams shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged check dams, end runs and undercutting beneath dams.
3. Necessary repairs to check dams shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one–half the height of the barrier.
5. Any sediment deposits remaining in place after the aggregate is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

ROCK CHECK DAM
SCALE: NONE



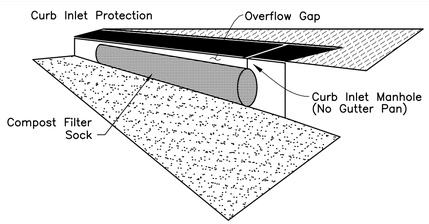
PLAN VIEW



Notes:
1. Drop Inlet Sediment Barriers are to be used for Small, Nearly Level Drainage Areas. (Less Than 5%)
2. Use 2"x4" Wood or Equivalent Metal Stakes, 3' Minimum Length.
3. Install 2"x4" Wood Top Frame to Insure Stability.
4. The Top of the Frame (Ponding Height) must be well Below the Ground Elevation Downslope to Prevent Runoff from by–passing the Inlet. A Temporary Dike may be Necessary on the Downslope Side of the Structure.

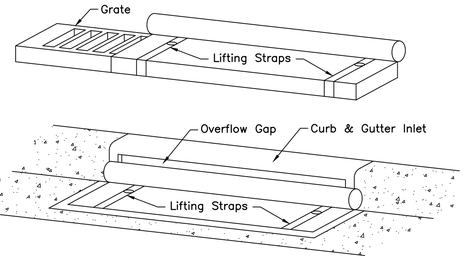
To be used on Structures: N/A

ALTERNATE CATCH BASIN INLET PROTECTION DETAIL: SILT FENCE DROP INLET PROTECTION
SCALE: NONE



Maintenance: With a stiff bristle broom sweep silt and other debris off surface after each event.

To be used on Structures: N/A



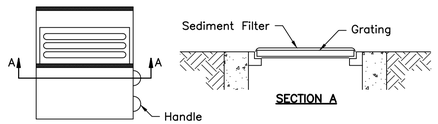
Installation:
Stand grate on end. Slide the Curb Bag over top of the grate. Pull all excess down. Lay unit on its side. Carefully tuck flap in. Press Velcro strips together. Install the unit making sure front edge of grate is inserted in frame first then lower back into place. Press Velcro dots together which are located under lifting straps. This insures straps remain flush with gutter.

Maintenance:
With a stiff bristle broom sweep silt and other debris off surface after each event.

Note:
Dandy Bag, Fryeflow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable.

To be used on Structures: N/A

CURB & GUTTER INLET SEDIMENT PROTECTION
SCALE: NONE



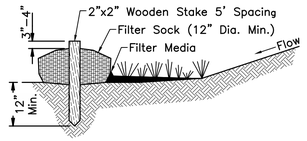
Installation:
1. Stand grate on end. Place Catch Basin Protection Bag over grate. Roll grate over so that open end is up. Pull up slack. Tuck flap in. Be sure end of grate is completely covered by flap or Catch Basin Protection Bag will not fit properly. Holding handles, carefully place Catch Basin Protection Bag with grate inserted into catch basin frame so that red dot on the top of the Catch Basin Protection Bag is visible.

Maintenance:
1. With a stiff bristle broom or square point shovel, remove silt & other debris off surface after each event.

Note:
1. Dandy Bag, FryeFlow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable

To be used on Structures: N/A

CATCH BASIN SEDIMENT FILTER
SCALE: NONE

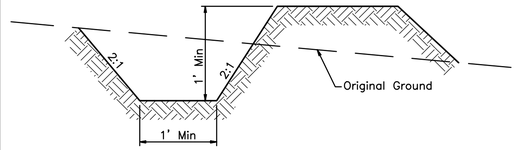


1. Materials – Compost used for filter socks shall be weed, pathogen and insect free and free of any refuse, contaminants or other materials toxic to plant growth. They shall be derived from a well–decomposed source of organic matter and consist of a particles ranging from 3/8" to 2".
2. Filter socks shall be 3 or 5 mil continuous, tubular, HDPE 3/8" knitted mesh netting material, filled with compost passing the above specifications for compost products.

Installation:
3. Filter socks will be placed on a level line across slopes, generally parallel to the base of the slope or other affected area. On slopes approaching 2:1, additional socks shall be provided at the top and as needed midslope.
4. Upon installation of the filter sock, additional filter media (matching the media inside of the sock) shall be placed on the upland side of the filter sock. Filter media shall extend halfway up the sock and slope at a maximum of 45 degrees to existing ground elevation.
5. Filter socks intended to be left as a permanent filter or part of the natural landscape, shall be seeded at the time of installation for establishment of permanent vegetation.
6. Filter socks are not to be used in concentrated flow situations or in runoff channels.

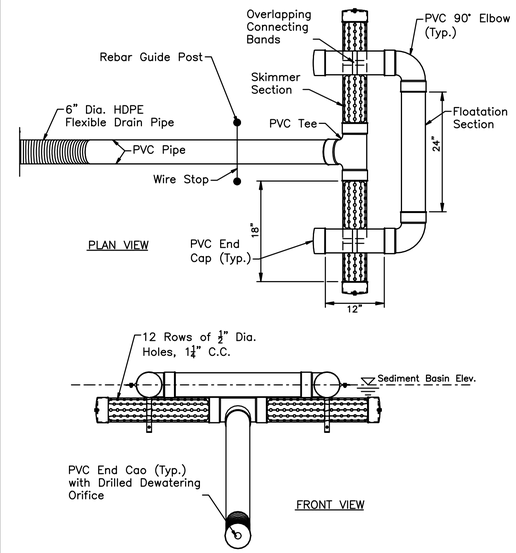
Maintenance:
7. Routinely inspect filter socks after each significant rain, maintaining filter socks in a functional condition at all times.
8. Remove sediments collected at the base of the filter socks when they reach 1/3 of the exposed height of the practice.
9. Where the filter sock deteriorates or fails, it will be repaired or replaced with a more effective alternative.
10. Removal – Filter socks will be dispersed on site when no longer required in such as way as to facilitate and not obstruct seedings.

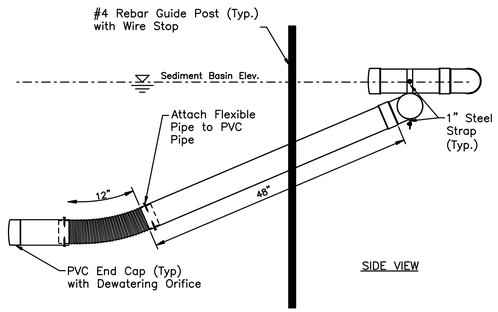
SEDIMENT BARRIER - COMPOST FILTER SOCK
SCALE: NONE



MAINTENANCE: All channels shall be stabilized per the requirements indicated within Table 1: Disturbed Area Stabilization Timeframe Requirements following their construction. The contractor shall be held responsible for maintenance of the channel prior to completion of the project. The slope of the channel shall be such to provide adequate drainage throughout the entire length of the channel.

TEMPORARY DIVERSION CHANNEL
SCALE: NONE





SKIMMER SPECIFICATIONS

BASIN	SKIMMER DIAMETER	SKIMMER ORIFICE DIAMETER	SKIMMER ORIFICE ELEVATION	WIRE STOP ELEVATION
X	X"	X"	XXX.XX	XXX.XX

Manufactured Skimmers may be substituted but must meet flow rate between XXX CFD and XXX CFD at maximum X.XX' depth. Shop Drawing to be reviewed by Engineer for approval.

City of Columbus Erosion and Sediment Control Inspector must approve removal of the temporary skimmer prior to converting the basin feature to the post–construction Stormwater Control Practice.

SEDIMENT BASIN SKIMMER
SCALE: NONE

POST CONSTRUCTION SCP INSPECTION AND MAINTENANCE SCHEDULE

INSPECTION ITEM	MAINTENANCE PROCEDURES	FREQUENCY OF INSPECTION
SCP Component Description	Include maintenance procedures. Procedures are to conform with the the City SCP Inspection and Maintenance Manual.	Indicate Frequency

SUMMARY OF POST-CONSTRUCTION STORMWATER CONTROL PRACTICES (SCPs REQUIRED)

CONTROL/ OUTLET STRUCTURE NO.	PLAN VIEW PAGE NUMBER FOR BMP	CONTROL FUNCTION	DRAINAGE AREA TO CONTROL FACILITY (ACRES)	FACILITY TYPE	GREEN INFRASTRUCTURE (SQUARE FEET)*

The following note shall be added in lieu of the table above in instances where stormwater control practices are included in another phase of development or are not required.

"Refer to drawing # <XX–XXXX> for stormwater control practice information"

"Reason the project does not meet the requirements of the SCP's"

100 YEAR DETENTION TABLE

LOCATION	VOLUME REQUIRED AC/FT	VOLUME PROVIDED AC/FT	ELEVATION	REMARKS
BMP DESCRIPTION	X.XX	X.XX	XXX.XX***	* & **

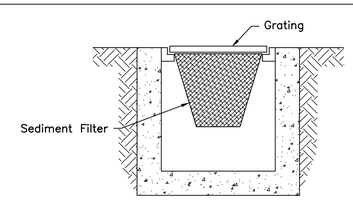
*See Storm Water Management Plan/Report for Details

**Stormwater Management Facility shall be owned and maintained by the private property owner, CC–XXXX.

***Top of XXXX

TEMPORARY SEDIMENT BASIN TABLE

BASIN	TRIBUTARY ACREAGE	DISTURBED ACREAGE	REQUIRED BASIN DEWATERING VOLUME (67 CY/AC)	PROVIDED BASIN DEWATERING VOLUME	REQUIRED SEDIMENT STORAGE VOLUME (37 C.Y. DISTURBED A.C.)	PROVIDED SEDIMENT STORAGE VOLUME
X	X Ac	X Ac	X CY	X CY	X CY	X CY



Installation:
1. Remove the storm sewer inlet grate.
2. Install the inlet filter onto the load bearing lip of the casting or concrete structure.
3. Replace the storm sewer inlet grate.

Maintenance:
1. Inspect the filter within 24–hours of a rain event.
2. Remove accumulated sediment and debris from the filter when more than half filled.
3. Remove the storm sewer inlet grate.
4. Remove grate and empty sediment or use a vacuum truck.
5. Properly dispose of removed sediment.
6. Replace filter if damaged.

Note:
1. Dandy Sck, FryeFlow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable

To be used on Structures: N/A

STORM SEWER INLET BELOW GRATE SEDIMENT FILTER
SCALE: NONE

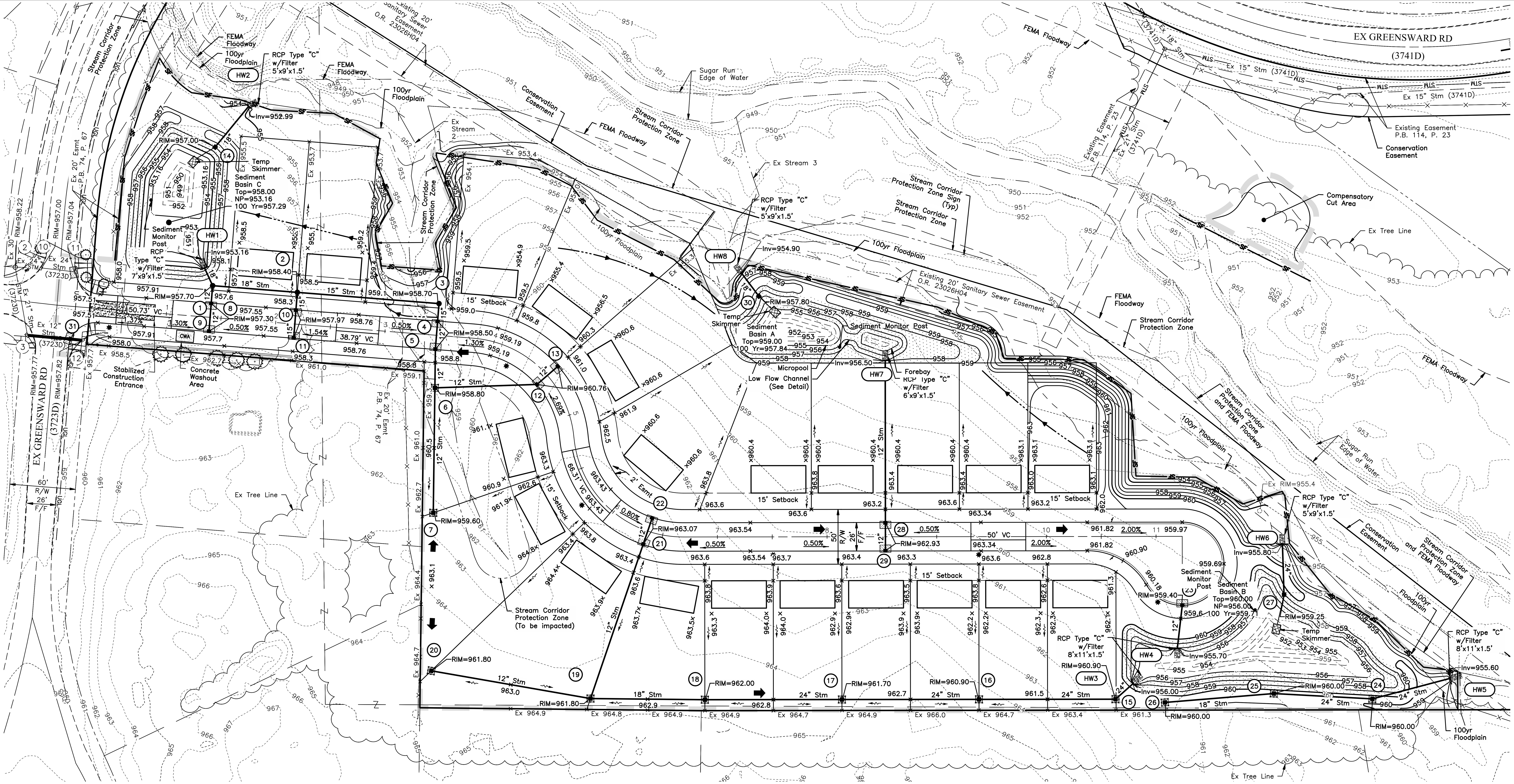
CALCULATED | CHECKED

STORMWATER POLLUTION PREVENTION PLAN NOTES

IMPROVEMENTS OF ...
STREET A FROM STREET B TO STREET C

XXXX-E

X
XX



LEGEND

905	Existing Major Contour
901	Existing Minor Contour
960	Proposed Major Contour
959	Proposed Minor Contour
ExStm / STM / ExCB / ExMH	Existing Storm Sewer
Stm / CB / MH	Proposed Storm
	Flood Routing Arrow
	Flow Arrow
	Temporary Skimmer
SF	Sediment Fence or Compost Filter Sock installation should be at edge of disturbance. Do not remove trees to facilitate installation. Actual placement should be determined by Construction Manager in the field.

	Limits of Disturbance (See Sheet 19 for Path Info)
	Stabilized Construction Entrance (See Detail, Sheet 9)
CWA	Concrete Washout Area (See Detail, Sheet 9)
	Proposed Curb & Gutter Inlet Protection (See Detail, Sheet 10)
	Proposed Silt Fence Inlet Protection (See Detail, Sheet 10)
	Erosion Control Matting Item 670, Type B
	Temporary Diversion Channel The contractor is to route runoff to the sediment basins during grading and filling activities. Locations and elevations of the diversion channels are to be adjusted during filling activities.

CALCULATED

CHECKED

STORMWATER POLLUTION PREVENTION PLAN

IMPROVEMENTS OF...

STREET A FROM STREET B TO STREET C

XXXX-E

XX / XXX